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ABSTRACT

Four hundred and ninety one primary journals covered by "Physics Abstracts" in 1965 have been studied and their basic characteristics analyzed in terms of sponsorship, distribution by country, language, frequency, and coverage by secondary services other than "Physics Abstracts," and the number of libraries holding each journal. (Author)

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PRIMARY JOURNAL LITERATURE OF PHYSICS

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PRIMARY JOURNAL LITERATURE OF PHYSICS

ABSTRACT

491 primary journals, covered by Physics Abstracts in 1965, have been studied and their basic characteristics analyzed in terms of sponsorship, distribution by country, language, frequency, and coverage by secondary services other than Physics Abstracts, and the number of libraries holding each journal.

I. Introduction

The study of the literature of physics in all its forms has been an integral part of the American Institute of Physics' program to develop a national physics information system. The Keenan and Brickwedde report on the Journal Literature Covered by Physics Abstracts in 1965[1] was the first component of an extensive review of the primary literature. The present study, performed in 1968/69, represents an extention of that effort. The purpose was to provide a bibliographical profile for each publication included in the previously mentioned report and to analyze and evaluate these newly added characteristics. No attempt was made to include editorial or publishing traits. The data thus obtained would serve as the basis for choosing additions to the AIP information store currently under development.

II. Methodology

In addition to the above quoted study there had been previous reports devoted to the primary journal literature of physics. These include Keenan and Atherton's Comprehensive Study Based on Physics Abstracts 1961 Issues,[2] ICSU/AB's Some Characteristics of Primary Periodicals in the Domain of the Physical Sciences,[3] ICSU/AB's World Literature in Physics as Seen Through Physics Abstracts 1964 Issues,[4] and ICSU/AB's World Literature as Seen Through Bulletin Signalétique 1964 Issues.[5] The scope and emphasis of all of these, however, differ considerably.

The present work covers 491 titles, four less than those covered by Keenan and Brickwedde. Since those left out had either ceased or merged with other publications, all of the data reported for the larger data base and utilized here had been normalized. The following data elements have been examined in detail: country, language and frequency of publication, type of publisher (including names of individual publishers), number of abstracts representing each journal in Physics Abstracts in 1965, amount of overlap with other fields through an examination of coverage by secondary services other than Physics Abstracts, and the number of libraries holding each journal.

All data gathering was manually done; only secondary sources, i.e., periodical directories, had been consulted. Ulrich's International Periodical Directory, 12th ed., (1967)[6] and Chemical Abstracts' List of Periodicals with Key to Library Files

(1961)[7] and its Access (1969)[8] were the primary sources. Data manipulation was accomplished by computer. The data were sorted eight different ways to help produce the tables on which the detailed analysis that follows is based.

Several conventions were adopted in analyzing the data.

1. All journals were listed by their CODEN, instead of full names or abbreviations.
2. Unless otherwise indicated, the language of a publication was assumed to be that of its country of origin.
3. When more than one language was used by a publication no distinction was made to the degree to which each one is used.
4. All frequency of publication designations were given terms of the numbers of issues appearing for each year.
5. A special effort was made to classify the agencies that sponsor and publish primary journals. They all have been categorized according to one of the following types: national academies (a), commercial (c), government (g), industrial companies (i), non-profit (n), international (w), and universities (u). Foreign publications are included in the category which most closely approximates their U.S counterparts. The major concern has been consistency in the placement of journals originating from a similar source rather than following a rigid definition of publisher type. These categories can be used singly or in any combination; publications which appear to be sponsored by two collaborating agencies have been given both publisher type codes.
6. Publisher's names have been abbreviated according to common usage; very often full names are included.
7. Since all titles included are covered by Physics Abstracts it does not appear in the "Services" section unless no other secondary service was found to cover the journal. (The designation P.A. (Physics Abstracts) and N.G. (not given) have both been used in Table I for the above mentioned cases.) In case only one service, e.g., Chemical Abstracts, is listed, it does not necessarily exclude coverage by others. It only denotes our inability to locate other coverage.

Table I lists all titles studied alphabetically by CODEN with all the

information gathered for each. All codes used in Table I are listed in Appendix A.

III. Analysis

As has already been noted, Table I summarizes all the basic data for the 491 journals studied. They originate from 41 countries, are sponsored by 298 different publishers, appear in 28 languages, and account for 32,274 abstracts covered by Physics Abstracts in 1965. The regional distribution of the above is given in Table A.

Table A

Distribution of Journals by Geographical Region

Region	No. Countries	No. Jnls.	No. Abs.	No. Pubs.
Americas	6	99	11,830	51
Eastern Europe	7	56	6,722	29
Western Europe	15	249	11,810	152
Asia, Africa, etc.	13	87	1,912	66
TOTAL:	41	491	32,274	298

The Americas and Western Europe are the most productive regions when productivity is measured in terms of the number of abstracts published. They each are responsible for 36.7% and 36.6% of the total respectively. It is interesting to note, however, that only 20.5% of the journals and 17.2% of the total number of publishers originate from the Americas. Western Europe, on the other hand, is responsible for 50.8% of the journals and 51% of the publishers. The eight countries that produce 75.6% of the journals, published by 70.8% of the publishers, and are responsible for 91.3% of the articles abstracted by Physics Abstracts in 1965 are listed in Table B.

Table B

High Producer Countries

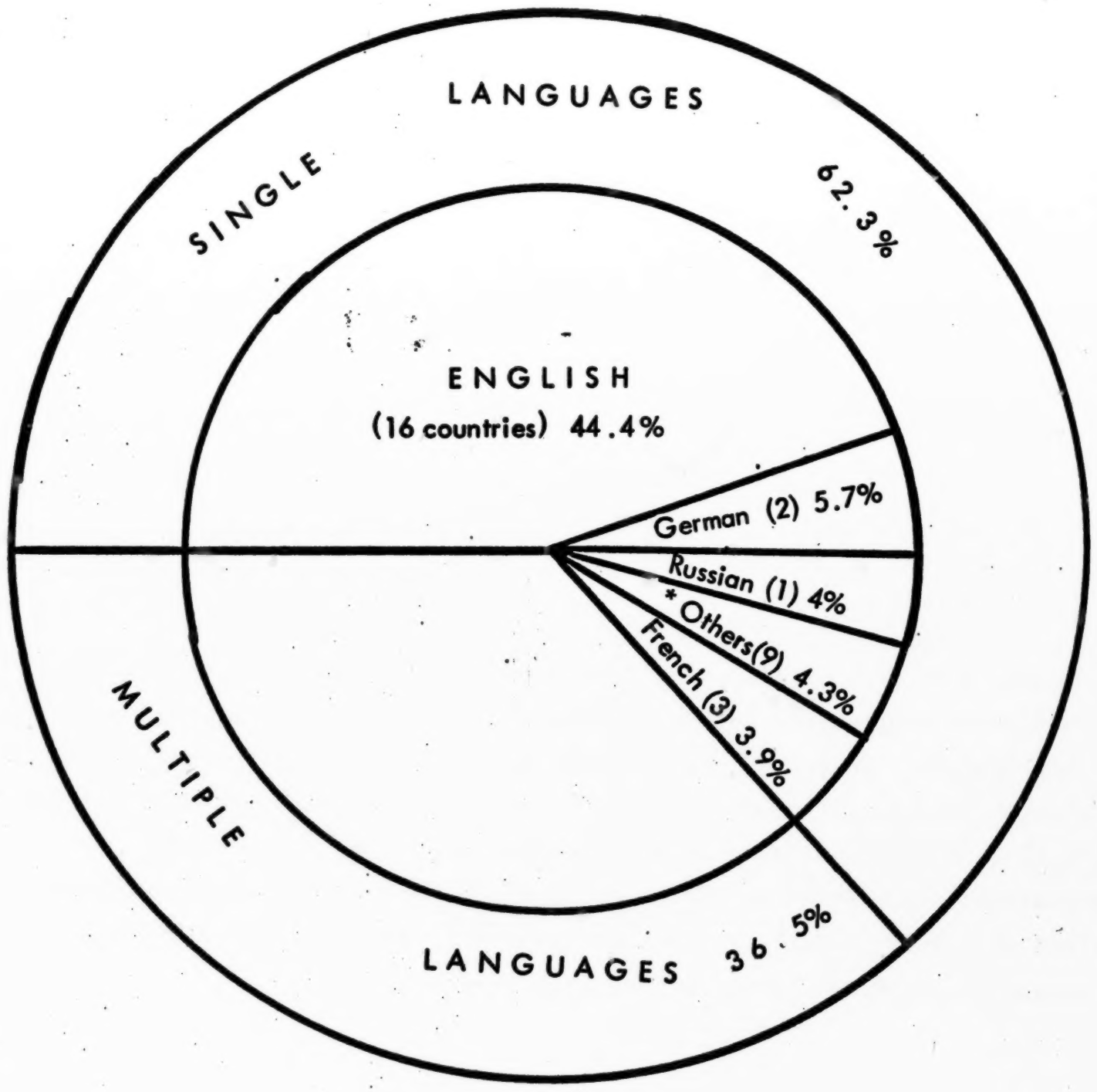
Country	No. Jnls.	%	No. Abs.	%	No. Pubs.	%
USA	91	18.5	11,514	35.7	45	15.1
USSR	29	5.9	5,836	18.1	8	2.7
Great Britain	93	18.9	3,790	11.7	46	15.4
Netherlands	17	3.5	2,723	8.4	6	2.0
Germany	53	10.8	2,064	6.4	33	11.1
France	23	4.7	1,290	4.0	18	6.0
Japan	51	10.4	1,226	3.8	44	14.8
Italy	14	2.9	1,028	3.2	11	3.7

English was found to be the most prominent language utilized by the journals studied, 394 or 80.2% of the total publish in English to some degree. Of the total, 62.3% were single language publications while 36.5% utilized more than one language. Figure I shows the breakdown.

When multiple languages are used the combination of three seems to be the most popular. 82 journals, or 16.7% of the total appear that way. The combination of English, French and German is the choice of 59 or 12% of the titles; these originate from 14 countries. Two languages were found in 11.2% of the publications. Little used languages were found in 11 journals, or 2.2% of the total. Table C lists these in detail.

Figure 1

Distribution of Periodicals by Language of Publication



*Others: Chinese
Dutch
Italian
Japanese
Portugese
Spanish
Swedish

Note: Parentheses denote number of countries.

Table C

Little Used Languages Appearing in Physics Journals

Language	No. Jnls.	Country of Publication
Bengalese	1	India
Flemish	2	Belgium
Latvian	2	Soviet Union
Lithuanian	1	Soviet Union
Serbian	1	Yugoslavia
Slovak	1	Czechoslovakia
Tamil	1	India
Thai	1	Thailand
Turkish	1	Turkey
Ukranian	1	Soviet Union

Sponsorship of journals was almost evenly divided between non-profit and commercial publishers; each was responsible for approximately 31% of the total sample. When considering, however, the percentage of physics articles that represented non-profit and commercial publishers in Physics Abstracts in 1965 the picture changes considerably. While non-profit organizations produced 43.5% of the articles, their commercial counterparts supplied only 28.5%. Table D shows the type and number of publishers and the amount of physics literature they each produced.

Table D

Sponsorship of Services by Type of Publisher

Type of Pubs.	No. Abs.	% Total	No. Jnls.	% Total	No. Pubs.	% Total
Non-Profit	14,025	43.5	153	31.2	106	35.6
Commercial	9,205	28.5	152	31.0	69	23.1
Natl. Acad.	6,956	21.6	61	12.4	31	10.4
Govt.	957	3.0	40	8.1	24	8.1
Univ.	943	3.0	59	12.0	45	15.1
Ind.	133	0.4	21	4.3	18	6.0
Intern.	40	0.1	2	0.4	2	0.7
TOTAL:	32,274		491		298	

Although the number of journals produced by a publisher is not necessarily a real measure of the publisher's importance in the field, a ranking by number of journals published was obtained and the following names emerged:

Table E

High Producer Publishers

Publisher	No. Jnls.	No. Abs.
Pergamon Press	23	1364
Akad Nauk SSSR	22	5410
AIP	16	8157
IEEE	16	274
Springer-Verlag	11	798
Taylor & Francis	8	523
North Holland	7	2446
Akademie Verlag	6	516

Table F

Regional Distribution Of Journal Sponsorship

	Pub. Type	No. Abs.	% Total	% Region	No.Jnls.	% Total	% Region	No.Pubs.	% Total	% Region
AMERICAS										
	Natl.Acad.	24	0.1	0.2	2	0.4	2.0	2	0.7	3.9
	Comm.	680	2.1	5.7	14	2.9	14.1	9	3.0	17.6
	Govt.	439	1.4	3.7	9	1.8	9.1	3	1.0	5.9
	Indust.	68	0.2	0.6	6	1.2	6.1	6	2.0	11.8
	Nonprofit	10,321	32.0	87.2	61	12.4	61.6	24	8.1	47.1
	Univ.	295	0.9	2.5	6	1.2	6.1	6	2.0	11.8
	Not Given	3	0.0	0.0	1	0.2	1.0	1	0.3	2.0
EASTERN EUROPE										
	Natl. Acad.	6,632	20.5	98.7	43	8.8	76.8	16	5.4	55.2
	Comm.	5	0.0	0.1	1	0.2	1.8	1	0.3	3.4
	Govt.	7	0.0	0.1	1	0.2	1.8	1	0.3	3.4
	Nonprofit	33	0.1	0.5	5	1.0	8.9	5	1.7	17.2
	Univ.	36	0.1	0.5	5	1.0	8.9	5	1.7	17.2
	Not Given	9	0.0	0.1	1	0.2	1.8	1	0.3	3.4
WESTERN EUROPE										
	Natl. Acad.	94	0.3	0.8	9	1.8	3.6	7	2.3	4.6
	Comm.	8,481	26.3	71.8	133	27.1	53.4	56	18.8	36.8
	Govt.	218	0.7	1.8	14	2.9	5.6	8	2.7	5.3
	Indust.	16	0.0	0.1	8	1.6	3.2	7	2.3	4.6
	Nonprofit	2,719	8.4	23.0	65	13.2	26.1	56	18.8	36.8
	Univ.	239	0.7	2.0	17	3.5	6.8	15	5.0	9.9
	Internat.	40	0.1	0.3	2	0.4	0.8	2	0.7	1.3
	Not Given	3	0.0	0.0	1	0.2	0.4	1	0.3	0.7
ASIA, AFRICA, ETC.										
	Nat. Acad.	206	0.6	10.8	7	1.4	8.0	6	2.0	9.0
	Comm.	39	0.1	2.0	4	0.8	4.6	3	1.0	4.5
	Govt.	293	0.9	15.3	16	3.3	18.4	12	4.0	18.2
	Indust.	49	0.2	2.6	7	1.4	8.0	5	1.7	7.6
	Nonprofit	952	2.9	49.8	22	4.5	25.3	21	7.0	31.8
	Univ.	373	1.2	19.5	31	6.3	35.6	19	6.4	28.8

An examination of the world's literature on a regional basis pointed up important differences in the types of publishers who sponsor physics periodicals. While in the Americas 87% of the articles are published by 24 non-profit organizations, in Western Europe 72% of the articles are the products of 56 commercial publishers. 56 non-profit agencies rank second with 26% of the material published. In Eastern Europe it is 16 national academies that are responsible for 99% of primary journal physics. In Asia, Africa, etc., 21 non-profit agencies produced 50% of the articles, while 6 national academies sponsored 11% of the materials. It is interesting to note that publications under international auspices originate only from Western Europe; industrial sponsors are located both in the Americas and Western Europe. Table F lists within each region the various publisher types, the number within each type, and their productivity both in terms of the number of journals published and abstracts appearing in Physics Abstracts in 1965.

The frequency with which a journal is published is an important factor in its characterization. Monthly publication (twelve issues per year) was found to be the most popular arrangement. The next most popular were quarterly and bi-monthly schedules. These data are shown in Table G.

When frequency of publication was analyzed in terms of the types of publishers involved for the total sample the following significant observations were made. 27 national academies, 49 commercial organizations and 60 non-profit institutions elected to publish monthly, 22 commercial and 23 non-profit organizations opted for the bi-monthly (six per year) schedule, while publications of 16 commercial and 29 non-profit institutions appear quarterly. It is interesting to note that the majority of periodicals sponsored by institutions of higher learning appear irregularly.

An examination of frequencies on a regional basis in terms of types of publishers bore out previous findings. Thus, in the Americas, the prime publishers, non-profit organizations, favored a monthly schedule for their magazines. This was followed by an evenly divided bi-monthly and quarterly arrangement. In Eastern Europe, national academies, the major sponsors of physics periodicals, also favored monthly schedules. Bi-monthly and quarterly arrangements ranked second and third, respectively. The majority of commercial publishers, who prevail in

Table G

Frequency Distribution in Terms of Productivity

Frequency/year	No. Jnls	% Total No. Jnls	No. Abs	% Total No. Abs
Irregular	77	15.7	889	2.8
Not Given	10	2.0	51	0.2
1	14	2.9	163	0.5
2	20	4.1	374	1.2
3	11	2.2	144	0.4
4	89	18.1	1531	4.7
5	1	0.2	3	0.0
6	70	14.3	3243	10.0
8	2	0.4	2	0.0
9	1	0.2	14	0.0
10	7	1.4	238	0.7
12	171	34.8	15,645	48.5
19	1	0.2	3	0.0
24	7	1.4	2672	8.3
26	4	0.8	2882	8.9
36	1	0.2	304	0.9
52	4	0.8	2051	6.4
72	1	0.2	2065	6.4

Western Europe, are again on a monthly schedule. Semi-monthlies and quarterlies are again second and third. Western European non-profit publishers, while favoring monthlies, prefer quarterlies next. In Asia, Africa, etc., while non-profit organizations favor monthly schedules for their publications, governmental agencies, also of importance, prefer quarterlies.

In order to determine the extent of coverage of physics journals by secondary services other than Physics Abstracts, we attempted to identify and summarize all services that covered each journal in the study. It must be emphasized, however, that although we often established title coverage by a service, we could not determine the extent of coverage by that service, i.e., do they provide full or only partial coverage. The percentage of physics involved was measured in terms of the number of journals in Physics Abstracts in 1965. 25 services were identified as providing some degree of coverage; no information was available for 15 or 3.05% of the titles studied. Seven services emerged as having some or substantial overlap with Physics Abstracts. Four of these, namely Chemical Abstracts, Engineering Index, Mathematical Reviews, and Metals Abstracts, have more than a 30% duplication of coverage. It is interesting to note that Nuclear Science Abstracts has only a 3% overlap. Table H summarizes these data.

Table H

Partial Physics Journal Coverage* by Secondary Services Other Than Physics Abstracts

Service	No. Jnls	% Jnls
Chemical Abstracts	368	74.9
Engineering Index	199	40.5
Mathematical Reviews	168	34.2
Metals Abstracts	159	32.3
Biological Abstracts	86	17.5
Applied Science and Tech. Index	44	9.0
Nuclear Science Abstracts	15	3.0

One might regard the number of libraries that hold a journal as a measure of the journal's importance. Accordingly, data have been collected and analyzed.

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*Extent of coverage not known.

Sixteen journals were identified as being held by more than 250 libraries each. Table I summarizes this information.

Table I

Periodicals Held by More Than 250 Libraries*

Journal	No. Libraries
American Journal of Physics	250
Bell System Technical Journal	250
Journal of Applied Physics	250
Journal of Chemical Physics	250
Journal of the Optical Society of America	275
Review of Scientific Instruments	275
Endeavour	300
Journal of Scientific Instruments	300
Nature	300
Journal of the Franklin Institute	330
Proceedings of the National Academy of Sciences of the U.S.A.	350
Journal of Physical Chemistry	400
Physical Review	450
Science	450
Scientific American	500
Journal of Research of the National Bureau of Standards, Sections A,B,C,D	650

*Figures as given are approximation, based on a count taken from Access.[8]

IV. Findings

1. The primary journal literature of physics is published in 41 countries in 28 languages and is under the auspices of 288 publishers.

2. In terms of the number of the titles analyzed, the sponsorship of 62% of the journals studied is evenly divided between non-profit and commercial publishers.

3. In terms of the number of abstracts representing each title in Physics Abstracts, the sponsorship of 72% of the titles is divided between non-profit and commercial agencies in the ratio of 3:2.

4. Western Europe is the most prolific region in terms of the number of countries, publishers and the journals they produce.

5. Although Great Britain is the most productive country in terms of the number of journals published,the US is the most productive in terms of the number of articles abstracted by Physics Abstracts in 1965.

6. English is the most important language in physics; 80% of the titles studied publish in English to some degree.

7. 87% of the articles published in the Americas are sponsored by non-profit organizations; 72% of Western European articles appear in commercially published journals; in Eastern Europe 98.6% of the articles are in periodicals sponsored by national academies; in Asia, Africa, etc. 50% of the articles are in magazines under the auspices of non-profit establishments.

8. 12 issues per year (monthly frequency) was found to be the most common. In terms of the number of abstracts appearing in Physics Abstracts, approximately 50% of the titles studied fall into that category.

9. 75% of the journals covered by Physics Abstracts in 1965 were also covered by Chemical Abstracts.

10. In terms of the number of libraries holding the journals studied, the five most widely held titles in order of popularity are: Journal of Physical Chemistry; Physical Review; Science; Scientific American; and Journal of Research of the National Bureau of Standards, Sections A, B, C, D.

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Table I

CODEN	LANG	CT	FQ	PT	PUBLISHER	# ABS PA/65	SERVICES
AABCA	EFO	BR	04	A	Acad Brasileira Ciencias	0004	BA,CA,MA
AAFPA	EFG	FI	IR	A	Acad Sci Fennica	0024	BA,CA,IM,MA
AASYA	E	SU	IR	AC	Svenska Vetakad, Almqvist	0002	CA,MR
AATFA	I	IT	IR	G	Accad Scienze Torino	0023	CA,MR
AATRA	EFG	FR	06	G	Cent National Recherche Scientifique	0072	CA,MG,MR
AATSA	NG	FR	NG	G	Cent National Recherche Scientifique	0032	NG
ABWGA	G	GE	01	C	F Vieweg	0003	AM,CA
ACCRA	EFGR	DE	12	WC	Internat Union Crystallog, Munskgaard	0281	CA,MA,MR
ACUPA	E	GB	NG	G	HM Stationery Office	0005	AM
ACUSA	EFG	GE	06	NC	Acoustics Group Phys Soc London, S Hirzel	0061	CA,EI,MR
ADPHA	E	GB	04	C	Taylor & Francis	0007	BT,CA,EI,MA,MR
ADWPA	G	GE	IR	AC	D Akad Wiss, Akademie-Verlag	0017	AM,CA,MR
AEIEA	EFGS	GB	06	N	Assoc Electrical Ind	0001	BT,CA,EI,MA,RP
AENGA	R	SR	12	A	Akad Nauk SSSR	0145	CA,EI
AEUBA	EG	GE	12	C	S Hirzel	0003	EI
AFGRA	EFGIS	IT	04	N	Ins Nazionale Geofisica	0007	CA,MR
AFROA	EGI	IT	06	N	Fondazione Giorgio Ronchi	0015	CA
AFYSA	E	SU	IR	AC	Svenska Vetakad. Almqvist	0083	CA,MA,MR
ACGAB	O	PG	IR	N	Cent De Calculo Cientifico	0001	CA,MR,NS
AGEPA	EFR	FR	04	G	Cent National Recherche Scientifique	0036	CA,MG
AGFYA	E	SU	IR	AC	Svenska Vetakad, Almqvist	0007	AM,CA,MG,MR
AGOSA	C	CI	04	A	Ins Science Tech Information	0013	CA,MG
AHPAA	F	FR	04	U	Univ Paris Ins Henri Poincare	0024	CA,MR
AIAJA	E	US	12	N	American Ins Aeronautics Astronautics	0004	CA,EI,MR
AJACA	E	AS	04	G	Commonwealth Scientific & Ind Res Org	0003	BA,CA,EI,FA,MA,MR
AJPIA	E	US	12	N	American Ins Physics	0187	AS,CA,EI,MA,MR
AJSIA	E	AS	12	N	Anzaas	0001	AM,CA,EI,IA,MG,MR,NS
AKZHA	R	SR	04	A	Akad Nauk SSSR	0109	CA,EI,MR
ALFRA	EI	IT	12	N	Assoc Electtrotechnica Elettronica Ital	0007	EI
ALMSA	EFGW	SU	IR	N	Royal Physiographic Soc	0001	CA,MR
AMETA	EFG	US	12	C	Pergamon	0184	CA,EI,MA

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
AMRSA	E	GB	04	C	Heywood-Temple	0007	BT,EI,MA
ANCHA	E	US	12	N	American Chemical Soc	0015	AS,BA,CA,EI,MA,NA,RP
ANJOA	E	US	10	NN	American Astronom Soc, American Ins Phys	0052	CA,MG,MR
ANPHA	F	FR	06	C	Masson & Cie	0043	CA,EI,MA,MR
ANPYA	G	GE	03	C	J A Barth	0058	CA,EI,MA,MR
ANRDA	EFG	FR	04	G	Cent D'Edition Documentation CSF	0001	EI,MR
ANTEA	F	FR	12	GN	Cen Natl Etudes Telecomm, Soc Rev Optique	0003	EI,MR
APASA	G	AU	03	C	Springer-Verlag	0061	CA,MA,MR
APHSA	CER	CI	12	N	Chinese Physical Soc	0139	CA,IA
APNYA	E	US	12	C	Academic	0092	CA,EI,MA,MR,SC
APOPA	EFGR	US	12	NN	Optical Soc, American Ins Physics	0354	EI,MA
APPLA	E	US	24	N	American Ins Physics	0192	EI
APPOA	EGR	PO	12	A	Polska Akad Nauk Ins Fizyki	0221	CA,MA
APSNA	NG	YU	NG	U	Univ Skopje Fac Sci	0003	NG
APSPA	E	US	06	N	Soc for Applied Spectroscopy	0009	CA,RM
APYCA	EGHR	HU	02	U	Univ Szeged Fac Natural Sci	0009	CA
APYEA	EFG	SU	IR	W	Scandinavian Council Applied Research	0003	AM,CA,EI,IA,MR,RM
ARAAA	E	US	04	N	Annual Reviews	0001	CA
ARBCA	F	BE	IR	A	Acad Royale Belgique	0002	BA
ARBMA	EFN	NO	IR	U	Univ Bergen	0003	CA
ARBSA	F	BE	12	A	Acad Royale Belgique	0030	BA,EI
ARFZA	FMR	RO	02	A	Acad Republ Populare Romine	0006	PA
ARKEA	E	SU	06	AC	Svenska Vetakad, Almqvist	0017	CA,MA
ARSEA	EFGS	SP	12	U	Univ Ciudad Fac Ciencias Madrid	0030	CA,MA
ASGVA	EF	SW	03	NC	Soc Phys, Librairie Payot	0005	BA,CA,MR
ASJOA	E	US	12	U	Univ Chicago Press	0280	CA,MG,MR
ASMMA	EI	IT	01	U	Univ Modena	0006	AM,CA,MR
ASNOA	EFG	NO	IR	UC	Univ Oslo Ins Theor Astrophys, H Aschehou	0031	MG,MR
ASRAA	E	NE	IR	AC	Cent Natl Org Appl Sci Res, Nijoff	0013	CA,EI,MA
ASRBA	E	NE	IR	AC	Cent Natl Org Appl Sci Res, Nijoff	0036	CA,EI,MA

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
ASSBA	F	BE	04	N	Ins De Physique	0005	CA,MR
ASZHA	R	SR	06	A	Akad Nauk SSSR	0146	MG
ATAOA	EG	JA	IR	UC	Univ Tokyo, Kasai	0005	NG
ATCVA	EGR	CZ	06	A	Ceskoslovenska Akad Ved	0004	CA,EI,MA
ATKEA	EG	GE	06	C	Verlag Karl Thiemig	0017	CA,MG,NS
ATMIA	G	GE	12	C	R Oldenbourg	0001	CA,EI,MA
ATROA	F	FR	12	N	Soc Astronomique France	0015	MG
ATSHA	EFGR	HU	04	A	Acad Sci Hung	0006	CA,EI,MR
AUJPA	E	AS	06	G	Commonwealth Scientific & Ind Res Org	0048	CA,EI,MA,MG,MR
AUTAA	NG	FI	IR	U	Univ Turku	0004	CA,MR
AUZFA	EFGIMR	RO	02	U	Univ Al I Cuza, Iasi	0016	CA,MR
BACSA	E	US	12	N	American Ceramic Soc	0005	AS,CA,EI,MA
BAINA	E	NE	IR	NC	Astronomical Ins, North Holland	0002	CA,MG,MR
BAMIA	E	US	12	N	American Meteorological Soc	0001	BA,CA,MG
BAPMA	EFGPR	PO	12	A	Polska Akad Nauk	0013	CA,MA,MR
BAPTA	EFGPR	PO	12	A	Polska Akad Nauk	0036	CA,EI,MA
BBACA	EFG	NE	19	C	Elsevier	0003	BA,CA,IM
BBPCA	EG	GE	10	C	Verlag Chemie	0033	CA,MA
BELLA	EJ	JA	12	I	Electrotechnical Lab	0025	CA
BFEYA	E	JA	01	U	Yokahama Natl Univ Fac Engr	0002	AM,CA
BICRA	EFG	JA	06	U	Kyoto Univ. Ins Chem Res	0010	BA,CA
BIPBA	EFMR	RO	06	U	Ins Politechnic Bucuresti	0005	MR
BJAPA	E	GB	12	N	Ins Physics & Physical Soc	0249	BT,CA,EI,MA,RP
BJRAA	E	GB	12	N	British Ins of Radiology	0001	BA,CA,IM,NA
BKNSA	EF	YU	04	N	Boris Kidrich Ins Nuclear Sciences	0011	CA,MR,NS
BKTMA	EJ	JA	01	U	Kyushu Ins Tech	0004	CA,MR
BLCEA	F	FR	NG	N	Lab Central Ind Electrique	0001	NG
BLRCA	E	US	12	I	Bell Telephone	0001	AS,CA,EI,MA,RP
BPPHA	G	GE	04	C	Akademie-Verlag	0010	PA

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
BSKAA	EF	JA	IR	U	Osaka Univ	0002	CA,MR
BSRSA	EF	BE	06	N	Soc Royale Sciences Liege	0015	AM,CA,MG,MR
BSSAA	E	US	06	NC	Seismological Soc, Waverly	0013	AM,MR
BSTJA	E	US	10	I	American Telephone Telegraph	0019	AS,CA,EI,MA,MR,PS
BTUIA	EFGY	TU	IR	U	Technical Univ Istabul	0001	CA,MR
BUFCA	F	FR	04	NC	Soc Franc Mineral Crist, Masson & Cie	0014	CA,MA
BUPIA	EFIMR	RO	02	U	Politechnic Ins Iasi	0003	CA,1A,MR
BURMA	F	BE	12	N	Assoc Ingr Electriciens	0001	EI
BUSEA	FG	SW	24	N	Assoc Suisse Electricians	0002	CA,EI,MA
BUSTA	EF	FR	IR	G	Cent National Recherche Scientifique	0019	CA,MR
CAPHA	F	FR	12	C	Revue D'Optique	0026	CA,MA,MR
CDIAA	E	IR	IR	U	Dublin Ins For Advanced Studies	0001	MR
CEIBA	G	GE	04	N	Continental Electro-Ind Aktien-Ges	0001	CA
CITBA	O	AR	06	N	Cent Estudiantes De Ingenieria	0002	CA,MR
CJCHA	E	CA	12	G	Natl Res Council Of Canada	0032	AG,BA,CA,IA,NS,RM
CJOPA	E	TA	02	N	Physical Soc Republic China	0013	CA
CJPHA	EF	CA	12	G	Natl Res Council Of Canada	0207	BA,CA,EI,MA,MG,MR,RP
CKCFA	EZ	CZ	06	A	Ceskoslovenska Akad Ved	0055	CA,MA,MR
CMPHA	EFG	GE	IR	C	Springer-Verlag	0007	NG
COREA	F	FR	52	AC	Acad Sciences, Gauthier-Villars	0714	BA,CA,EI,IM,MA,MG,MR
CPHMA	EFG	FI	IR	A	Soc Scientiarum Fennica	0007	NG
CRABA	EFGR	BU	12	A	Bulgarska Akad Nauk	0055	CA,MA
CRBNA	EFG	GB	04	C	Pergamon	0021	CA
CRYOA	EFGIR	GB	06	C	Heywood-Temple	0038	BT,EI,MA
CTHHA	EFGW	SU	IR	UC	Chalmers Tekn Hogsk, Akademiforlaget	0008	CA,EI,MR
CTPHA	E	GB	06	C	Taylor & Francis	0033	EI,MA
CUSCA	E	IN	26	N	Raman Res Ins	0036	BA,CA,MA
CZYPA	EGR	CZ	12	A	Ceskoslovenska Akad Ved	0137	CA, MA, MR
DANKA	EFGR	SR	36	A	Akad Nauk SSSR	0304	BA,CA,MA,MG,MR,PS

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
DFSOA	E	GB	02	C	Butterworth	0024	CA,EI,MA,MR,RP
DSCHA	EJ	JA	NG	I	Electrotechnical Lab	0001	NG
DSFOA	E	IN	04	G	Ministry of Defense	0002	BS,CA
EENAA	EG	GE	IR	C	Springer-Verlag	0003	CA
EKTRA	G	GE	12	NC	Kammer Der Technik, Veb Verlag Technik	0001	CA,MA
EKZAA	EFG	GE	24	N	Vde-Verlag.	0002	CA,EI,MA
ELCEA	E	GB	12	C	Morgan Brothers	0003	AS,BT,CA,EI,MA
ELLEA	E	GB	12	N	Ins Electrical Engineers	0045	SC
ELPWA	E	GB	12	N	Ins Electrical Engineers	0001	BT,CA,EI
ENDEA	EFGIS	GB	03	I	Imperial Chemical Ind	0002	BA,BT,CA,EI,MA,PS,RP
ENNLA	EI	IT	12	N	Cent Informazioni Studi Esperienze	0016	CA,EI
ERARA	E	GB	IR	I	Brit Electrical Allied Ind Res Org	0001	NG
ERITA	W	SU	02	I	L M Ericsson	0001	EI
EXPEA	EFGIRS	SW	12	C	Brikhauser	0001	BA,CA,MA
EXPPA	G	GE	06	C	Veb D Verlag Der Wissenschaften	0057	CA,MA
FINGA	EFG	GE	12	C	Verlag Wissenschaft & Leben	0001	EI
FLNWA	G	GE	IR	C	Westdeutscher Verlag	0006	BA,CA
FMMTA	R	SR	12	A	Akad Nauk SSSR	0332	CA,EI,MA
FPYKA	EG	GE	12	C	Akademie-Verlag	0016	CA,MA,MR
FQNZA	G	GE	12	C	Fachverlag Schiele & Schon	0002	EI
FTVTA	R	SR	12	A	Akad Nauk SSSR	0775	CA,EI
GBGPA	EFGIRS	GE	06	C	Akad Verlagsges Geest	0009	CA
GEAEA	R	SR	06	A	Akad Nauk SSSR	0181	CA,MG
GECJA	E	GB	03	I	General Electric	0005	BT,EI,MA,RP
GEOJA	E	GB	10	N	Royal Astronomical Soc	0019	CA,MG
GEPBA	EFG	NO	IR	AC	Norske Videnskaps Akad, H Ascheoug	0005	CA,MG
GHJSA	E	GH	04	A	Ghana Acad Sciences	0001	BA
GIRNA	EJ	JA	12	G	Govt Industrial Research Ins	0006	CA
GPATA	NG	US	NG	NG	NG	0003	NG
GPYSA	E	US	06	N	Soc Exploration Geophysicists	0004	AS,BA,CA,EI

Table 1 (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
HJSCA	G	GE	NG	I	Jos Schneider	0003	NG
HOBLA	EFS	FR	08	N	Assoc Diffusion Documentation Hydrquliqu	0001	EI,MG,MR
HOELA	G	GE	06	C	Akad Verlagsges Geest	0002	EI,MR
HPACA	EFGI	SW	IR	NC	Soc Physicae Helveticae, Birhauser	0099	BA,CA,MA,MR
HPJOA	E	US	12	I	Hewlett-Packard	0001	PA
HUAPA	EFGR	HU	04	A	Acad Sci Hung	0056	CA,MR
IAFZA	R	SR	12	A	Akad Nauk SSSR	0058	CA,EI,MR,NS
IANFA	R	SR	12	A	Akad Nauk SSSR	0385	AM,CA,MR,NS,RM
IBMJA	E	US	04	I	IBM	0026	BA,CA,EI,MA,MR,PS
ICRSA	E	US	06	C	Academic	0027	CA,SC
IEARA	E	US	04	N	IEEE	0002	AS,CA,EI,MR
IECHA	E	US	12	N	American Chemical Soc	0014	AS,CA,EI,MA,RP
IECPA	E	US	04	N	IEEE	0001	AS,CA,EI,MR
IECRA	E	US	01	N	IEEE	0008	CA
IEEPA	E	US	12	N	IEEE	0108	AS,CA,EI,MG,MR
IEESA	E	US	12	N	IEEE	0003	CA
IEEUA	E	US	06	N	IEEE	0001	AS,CA,EI,MR
IEIMA	E	US	04	N	IEEE	0003	AS,CA,EI,MR
IEIMB	E	GB	NG	N	Ins Engr Inspection	0001	NG
IEJQA	E	US	12	N	IEEE	0010	EI,SC
IELEA	E	GB	12	C	Iliffe	0004	AS,BT,EI
IELRA	G	GE	12	C	Verlag Fur Radio-Foto-Kinotechnik	0004	EI,RM
IEMEA	E	US	04	N	IEEE	0012	AS,CA,EI,MR
IENGA	E	GB	02	C	George Kent	0002	BT,CA,EI,MA,NA
IESUA	E	US	IR	N	IEEE	0007	AS,CA,EI,MR
IETCA	E	US	06	N	IEEE	0001	AS,CA,EI,MR
IETDA	E	US	12	N	IEEE	0023	AS,CA,EI,MR
IETMA	E	US	06	N	IEEE	0015	AS,CA,EI,MR
IETNA	E	US	06	N	IEEE	0059	AS,CA,EI,MR
IETPA	E	US	06	N	IEEE	0019	AS,CA,EI,MR
IETTA	E	US	04	N	IEEE	0002	AS,CA,EI,MR
IFABA	EFGR=	BU	01	A	Bulgarska Akad Nauk Ins Fiz	0036	CA
IFAOA	ER	SR	12	A	Akad Nauk SSSR	0084	CA,EI,MR,NS
IJARA	EFGR	GB	12	C	Pergamon	0026	CA,IM,NA

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
IJELA	E	GB	12	C	Taylor & Francis	0027	SC
IJESA	EFG	GB	06	C	Pergamon.	0016	MR
IJHMA	E	GB	12	C	Pergamon.	0048	EI
IJMGA	E	IN	04	G	Indian Meteorological Dept	0015	MG
IJOCA	E	IN	12	G	Council Of Scientific & Ind Res	0001	BA,CA
IJOPA	E	IN	12	G	Council Of Scientific & Ind Res	0131	BA,CA,MA
IJOTA	E	IN	12	G	Council Of Scientific & Ind Res	0001	BA,CA,NA
IJTPA	BE	IN	04	N	Ins Theor Physics	0018	MR
IJUPA	E	IN	12	A	Indian Assoc Cultivation Science	0088	BA,CA,MA,MR
ILENA	E	US	12	N	Illuminating Engr Soc	0003	AS,EI
IMSCA	E	GB	12	C	Pergamon	0010	BT,CA,EI,MA,MR
INCSA	E	US	12	CC	Rimbach Publ Of, Chilton	0009	AS,CA,EI,MA
INFPA	E	GB	04	C	Pergamon.	0024	CA
INFZA	ER	SR	12	A	Akad Nauk BSSR	0050	CA,EI
INSRA	E	US	04	I	Honeywell Ind Div	0001	CA,EI
ISATA	E	US	04	NC	Instrument Soc America, Plenum	0004	CA,NS,RM
ISJTA	E	IS	04	G	Weizmann Science Press Of Israel	0007	BA,CA
JACHA	E	GB	12	N	Soc Of Chemical Ind	0001	AS,CA,EI,MA,RP
JACSA	E	US	24	N	American Chemical Soc	0054	AS,BA,CA,EI,MA,NA,RP
JACTA	E	US	12	N	American Ceramic Soc	0186	AS,CA,EI,MA
JAHSA	E	US	06	N	American Meteorological Soc	0078	BA,CA,EI,MG,MR
JANBA	E-	IN	IR	U	Annamalai Univ	0004	CA,MR
JAPIA	E	US	12	N	American Ins Physics	0931	AS,CA,EI,MA,MR,RP
JAPTA	E	GB	12	C	Pergamon	0176	CA,MG
JASMA	E	US	12	N	American Ins Physics	0337	MG,PS
JBAAA	E	GB	06	N	British Astronomical Assoc	0004	PA
JBNSA	E	GB	04	N	British Nuclear Energy Assoc	0002	BT,CA,EI
JBTJA	EJ	JA	06	I	NHK Tech Res Lab	0001	CA
JCEDA	E	US	12	N	American Chemical Soc	0004	BA,CA

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
JCPBA	F	FR	12	N	Soc De Chime Physique	0062	CA,MA
JCPSA	E	US	24	N	American Ins Physics	1655	CA,EI,MA,MR,RP
JCSCA	E	US	12	C	Academic	0003	AS,BA,CA,MA,RP,SC
JCSOA	E	GB	12	N	Chemical Soc	0001	BT,RP
JEJAA	G	GE	IR	CC	Veb C Zeiss, Veb Gustav Fischer Verlag	0014	PA
JELCA	E	GB	12	C	Taylor & Francis	0010	SC
JEMSA	E	US	02	U	Univ North Carolina Press	0001	BA,CA
JESOA	E	US	12	N	Electrochemical Soc	0104	AS,CA,EI,MA
JFANA	E	JA	IR	US	Univ Tokyo, Maruzen	0010	CA,MA
JFINA	E	US	12	N	Franklin Ins	0009	AS,BA,CA,EI,MA,MR,PH
JFLSA	E	GB	12	U	Cambridge Univ Press	0037	BA,CA,EI,MG,MR
JGEGA	E	JA	04	NC	Soc Terrestrial Magn, Japan Publ Trading	0019	MG
JGREA	E	US	24	N	American Geophysical Union	0699	BA,CA,EI,MG
JHAPA	EFG	JA	02	U	Hiroshima Univ	0008	CA,MA,MR
JIEEA	EJ	JA	12	N	Ins Electrical Comm Engr	0009	CA,EI
JIEJA	EJ	JA	12	N	Ins Of Electrical Engr	0006	EI
JIENA	E	IN	03	N	Ins Of Engr	0001	AM,EI,RM
JIISA	E	IN	04	N	Indian Ins Of Science	0003	BA,CA,EI,MA
JIMEA	E	GB	12	N	Ins Of Metals	0041	CA,NS
JINCA	EFG	GB	12	C	Pergamon	0005	CA,MA
JINVA	E	GB	04	N	Royal Geographic Soc	0001	BT
JISTA	E	GB	12	N	Iron & Steel Ins	0007	AS,BT,CA,EI,MA
JITEA	E	IN	12	N	Ins Telecomm Engr	0015	EI
JJAPA	EFG	JA	12	N	Physical Soc of Japan	0198	CA,EI,MA
JMAPA	E	US	12	N	American Ins Physics	0258	MA,MR
JMESA	E	GB	04	N	Ins Mechanical Engineers	0003	BT,EI,MA
JMKYA	E	JA	IR	U	Kyoto Univ Fac Science Math Ins	0001	MR
JMOSA	E	US	12	C	Academic	0079	BA,CA,SC
JMPHA	E	US	04	U	Massachusetts Ins Technology	0002	AS,CA,EI,MR

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
JMPSA	E	GB	06	C	Pergamon	0019	CA,EI,MA,MR
JMTAA	E	GB	04	NC	Ins Math & Appl, Academic	0009	BT
JNECA	EFG	GB	06	C	Pergamon	0053	CA,EI
JNUMA	EFG	NE	04	C	North Holland	0086	CA,EI,MA
JNUSA	EFG	GB	06	C	Pergamon	0014	CA,EI
JOMCA	EFG	FR	04	C	Gauthier-Villars	0013	MR
JOMMA	EFGI	US	12	U	Indiana Univ Grad Ins Math Mech	0002	EIMR
JOOBA	F	FR	12	N	Observatoire De Marseille	0001	NG
JOPQA	EF	FR	12	N	Soc Francaise De Physique	0163	CA,EI,MA
JOSAA	E	US	12	N	American Ins Physics	0316	BA,CA,EI,MA,MG,MR,PS
JPCHA	E	US	12	N	American Chemical Soc	0129	CA,EI,MA,RP
JPCSA	EFG	GB	12	C	Pergamon	0220	CA,EI,MA
JPTSA	E	GB	06	N	Royal Photographic Soc	0009	CA
JQSRA	EFGR	GB	06	C	Pergamon	0071	CA
JRASA	E	CA	06	N	Royal Astronomical Soc	0005	AM,CA
JRCTA	ET	TH	04	G	Natl Res Council, Govt House Printing Off	0001	BA,CA,MA
JRNBA	E	US	06	G	Natl Bur Standards, U.S. Govt Printing Off	0165	AS,BA,CA,EI,MA,RP
JRRLA	J	JA	06	G	Ministry of Posts & Telecomm	0010	EI
JRSRA	F	FR	04	G	Cent National Recherche Sci, Lab Bellevue	0001	BA,CA
JSIMA	E	US	06	N	Soc For Ind & Appl Math	0001	CA,EI,MR
JSINA	E	GB	12	N	Ins Physics & Physical Soc	0306	AS,BA,BT,CA,EI,MA,NA
JSIRA	E	IN	12	G	Council Of Scientific & Ind Res	0010	AG,AM,BA,CA,EI,IA
JSRBA	E	IN	IR	U	Banaras Hindu Univ	0004	BA,BS,CA,MR,RZ
JSVIA	E	GB	06	C	Academic	0012	BT,EI,SC
JUPSA	EFG	JA	12	N	Physical Soc Of Japan	0471	CA,MA,MR
JVSTA	E	US	06	N	American Ins Physics	0011	CA
KATKA	G	GE	12	C	Verlag C F Muller	0001	CA,EI
KOVSA	EFG	DE	IR	AC	Danske Vidensk Selsk, Munkscaard	0004	CA,MA,MR
KERNA	G	GE	12	C	Akademie-Verlad	0003	PA
KFTMA	EJ	JA	02	U	Kanazawa Univ	0001	CA
KJSAA	E	JA	IR	U	Kumamoto Univ, Fac Science	0002	CA,MR

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
KNWBA	D	NE	12	AC	Ned Akad Wetensch, North Holland	0009	BA,CA
KOISA	R	SR	06	A	Akad Nauk SSSR	0042	CA
KRISA	R	SR	06	A	Akad Nauk SSSR	0293	CA,MA
KTHHA	EFG	SU	IR	U	Tekniska Hogskolan	0001	MA,MR
LABPA	E	GB	12	C	United Trade Press	0004	BT,CA,MA,NA,RP
LBDVA	E	IN	IR	N	Sci Tech Soc, Kanpur	0001	CA
LFRMA	EGKR	SR	02	A	Akad Nauk Litov SSR	0049	PA
LZAVA	EGLR	SR	12	A	Akad Nauk Latv SSR	0005	CA,MR
LZFTA	ELR	SR	IR	A	Akad Nauk Latv SSR	0043	CA
MAEVA	E	US	12	N	Soc For Nondestructive Testing	0010	CA,EI,MA
MCRLA	E	GB	04	C	Pergamon	0010	EI
MDAWA	G	GE	12	AC	D Akad Wiss, Akademie-Verlag	0038	AM,CA
MDLRA	E	JA	04	I	Mitsubishi Electric	0007	EI
MDPCA	E	JA	04	N	Defense Acad	0005	CA
MEBEA	EFG	GB	06	WC	Intl Fed Med Electronics, Pergammon	0002	BA
MEKYA	EFG	JA	04	U	Kyoto Univ	0002	CA,EI,MA
MENAA	E	JA	02	U	Nagoya Univ	0004	AM,CA
MFEKA	EJ	JA	NG	U	Kobe Univ	0001	NG
MFEOA	E	JA	01	U	Osaka City Univ	0001	CA
MFYCA	EFGRVZ	CZ	04	A	Slovenska Akad Ved	0003	MR
MIAKA	E	JA	01	U	Kyoto Technical Univ	0002	CA
MKWLA	EX	BE	IR	A	Vlaamse Akad Wetensch	0003	CA,MG,MR
MNRAA	E	GB	12	N	Royal Astronomical Soc	0048	CA,MG,MR
MOPHA	EFG	GB	12	C	Taylor & Francis	0066	CA,MR
MRYAA	E	GB	IR	N	Royal Astronomical Soc	0003	MR
MSATA	EFI	IT	04	N	Astronomica Italiana	0008	MR
MSPCA	EJ	JA	IR	NU	Soc Mass Spectroscopy, Univ Osaka	0011	CA
MSRGA	EFR	GE	12	G	Veb Verlag Technik	0001	CA
MSRSA	F	BE	04	N	Soc Royale Sciences	0029	CA,MR

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
MTRGA	EFGRS	GE	04	WC	Intl Comm Weights, Springer-Verlag	0005	SC
MTRSA	E	US	12	N	American Soc For Testing & Materials	0019	AS,CA,EI,MA,RP
MUTCA	E	GB	IR	I	Mullard	0001	BT,EI
NAAKA	G	GE	IR	AC	Akad Wiss Gottingen, Vandenhoeck	0005	CA,MR
NAFAA	G	GE	03	C	F Vieweg	0004	EI
NAPSA	E	GB	IR	G	Natl Physl Lab, HM Stationery Off	0001	EI
NATUA	E	GB	52	C	MacMillan	0409	BA,BT,CA,EI,MG,MR,RP
NATWA	EFG	GE	24	NC	Max Planck Ges, Springer-Verlag	0068	BA,CA,MG
NAZEA	EG	GE	12	C	F Vieweg	0002	AM,CA,EI
NBAMA	E	US	IR	G	Natl Bur Standards, US Govt Printing Off	0001	MR
NBSHA	E	US	IR	G	Natl Bur Standards, US Govt Printing Off	0002	CA
NBSMA	E	US	IR	G	Natl Bur Standards, US Govt Printing Off	0010	CA
NBSPA	E	US	IR	G	Natl Bur Standards, US Govt Printing Off	0016	AM,CA,EI
NECRA	E	JA	02	I	Nihon Denki	0003	EI
NSENA	E	US	12	NC	American Nuclear Soc, Academic	0154	EI
NTNKA	DEFG	NE	12	NC	Ned Natuurkundige Vereniging, Nijhoff	0014	AM,CA,MR
NUCIA	EFGIS	IT	26	N	Soc Italiana Di Fisica	0868	CA,EI,MA,MG,MR
NUCLA	E	US	12	C	McGraw-Hill	0036	AS,BA,CA,EI,MA
NUCUA	EI	IT	IR	N	Soc Italiana Di Fisica	0026	CA
NUFUA	EFRS	AU	04	W	Internatl Atomic Energy Agency	0037	CA,EI
NUIMA	EFG	NE	12	C	North Holland	0279	CA
NUKKA	EFG	GE	06	C	Springer-Verlag	0062	CA,EI,MA
NUKLA	EPR	PO	12	A	Polska Acad Nauk	0078	CA,MA
NUPHA	EFG	NE	26	C	North Holland	0770	CA,MA,MR
NZJSA	E	NZ	04	G	Dept Scientific Ind Research	0002	CA,MA,MR
OBSEA	E	GB	06	NC	Royal Greenwich Observatory, Dawson	0014	CA,MG,MR
ONELA	EF	FR	12	NC	Soc Des Radioelectriciens, Ed Chiron	0004	EI
OPTAA	E	GB	04	C	Taylor & Francis	0035	CA,IM,MR
OSFMA	R	SR	12	A	Akad Nauk SSSR	0389	CA
OTIKA	G	GE	12	C	Wissenschaftliche Verlagsges	0076	CA,EI,MA,MR
PAIAA	E	IN	12	A	Indian Acad Sciences	0002	BA,CA,MA,MR,NA
PAMRA	E	GB	04	C	Heywood-Temple	0008	BT,EI,MA

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
PASJA	E	JA	04	NC	Tokyo Astronom Obser, Japan Trading Publ	0005	SC
PASPA	E	US	06	N	California Acad Sciences	0022	CA,MR
PBRCA	E	GB	01	N	British Ceramic Soc	0010	BT,RM
PCGLA	EFG	GB	06	N	Soc Of Glass Technology	0029	BT,CA,EI
PCPSA	E	GB	04	NU	Cambridge Philosophical Soc, Univ Press	0029	CA,EI,MA,MR
PCRYA	EFGIR	GB	06	C	Heywood-Temple	0003	BT,EI,MA
PDOOA	E	CA	IR	G	Dept Mines Dominion Obser	0005	AM
PFLDA	E	US	12	N	American Ins Physics	0381	CA,EI,MR
PHBLA	G	GE	12	C	Physik Verlag	0006	CA,MA
PHLTA	EFG	NE	26	C	North Holland	1208	MR
PHMAA	E	GB	12	C	Taylor & Francis	0303	CA,EI,MA,MR
PHMBA	EFG	GB	04	C	Taylor & Francis	0042	BA,CA,IM,NA
PHNOA	E	NO	IR	AU	Norske Videnskaps Akad, Univ Oslo Ins Phys	0010	CA,MR
PHRVA	E	US	72	N	American Ins Physics	2065	CA,EI,MA,MR
PHSSA	EFGR	GE	12	C	Akademie-Verlag	0432	CA,EI
PHTOA	E	US	12	N	American Ins Physics	0001	AS,CA,EI
PHYSA	EFG	NE	12	NC	Physica Foundation, Nihoff	0156	CA,MR
PIASA	E	IN	12	A	Indian Acad Sciences	0041	BA,CA,MA,MR
PIEEA	E	GB	12	N	Ins Electrical Engineers	0022	AS,BT,CA,EI,MG,MR
PIGBA	E	GB	03	N	Royal Ins GB	0001	BT,CA,MA
PIMLA	E	GB	IR	N	Ins Mechanical Engineers	0003	AS,BT,CA,EI,MA,MR
PIOAA	E	GB	IR	NU	Leeds Philosophical Literary Soc, Univ	0001	AG,CA,EI
PIPSA	EF	JA	04	NU	Res Ins Fundamental Phys, Kyoto Univ	0023	CA
PIPUA	E	IN	06	N	Natl Ins Sciences India	0011	BA,CA,MA
PJACA	EFG	JA	12	A	Japanese Acad	0003	BA,CA,MA,MR
PKOMA	EFG	GE	01	C	Springer-Verlag	0037	CA
PLPUA	EFG	AU	03	NI	Metallwerk Plansee Ges, Am Electro Metal	0002	CA,EI,MA
PLSSA	E	GB	12	C	Pergamon	0099	CA,MG
PMAMA	EFG	SR	06	A	Akad Nauk SSSR	0024	EI,MR

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
PMAZA	EFGQR	YU	02	N	Soc Mathematicorum Physicorum Croatiae	0008	CA,MR
PNASA	E	US	12	A	Natl Acad Sciences	0020	BA,CA,EI,IM,MA,MR,NA
PPEEB	EGR	HU	04	C	Akademia Kiado	0005	EI,MA
PPIEA	NG	PO	12	N	Ins Elektroniki	0006	CA
PPSOA	E	GB	12	N	Ins Physics & Physical Soc	0328	CA,EI,MA,MR
PRIAA	E	IR	IR	A	Royal Irish Acad	0003	CA
PRISA	R	SR	12	G	Gosudarst Kom Avtomat	0007	CA
PRLAA	E	GB	IR	N	Royal Soc	0159	CA,EI,MA,MG,MR,RP
PRLTA	E	US	52	NN	American Physical Soc, American Ins Phys	0795	CA,EI,MA,MR
PRMBA	DEF	BE	OS	N	Ins Royal Meteorologique Belgique	0003	CA
PRMSA	E	GB	IR	C	Pergamon	0003	CA,EI
PRRES	E	NE	06	C	Centrex Publishing	0045	AM,CA,EI,MA,PS,RM
PRSSA	E	NE	IR	C	Centrex Publishing	0002	CA
PRTEA	R	SR	06	A	Akad Nauk SSSR	0668	CA,NS
PSEMA	E	GB	01	C	Heywood-Temple	0006	CA
PSTRA	E	PA	04	G	Pakistan Council Scientific & Ind Res	0002	BA,CA
PTMRA	E	GB	04	C	Johnson & Mathey	0002	CA,EI,MA
PTPKA	EF	JA	12	NU	Res Ins Fundamental Phys, Kyoto Univ	0233	CA,MA,MR,NS,RM
PTREA	DEFG	NE	12	C	Centrex Publishing	0002	CA,EI,MA,PS
PTRMA	E	GB	IR	N	Royal Soc	0018	CA,EI,MA,MR
PUNSA	E	GB	IR	U	Univ Newcastle Upon Tyne	0001	AG,CA,MR
PVBPA	EPR	PO	04	A	Polska Akad Nauk Ins Basic Tech Problems	0012	PA
PYCSA	EFG	US	06	C	Physics Publishing	0025	SC
PZELA	EPR	PO	12	N	Stowar Elekt Polskich	0005	PA
QAMAA	E	US	04	U	Brown Univ	0007	BA,EI,MR
QJMMA	E	GB	04	U	Oxford Univ Press	0001	MR
QJRAA	E	GB	04	N	Royal Astronomical Soc	0016	MR
QJRMA	E	GB	04	N	Royal Meteorological Soc	0017	BA,CA,MG

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
RACZA	S	SP	02	N	Acad Ciencias De Zaragoza	0003	BA,CA,MR
RAELA	R	SR	12	A	Akad Nauk SSSR	0174	CA,EI
RALFA	I	IT	IR	A	Accad Nazionale Lincei	0023	AG,CA
RAREA	E	US	12	C	Academic	0002	BA,CA,IM
RATEA	R	SR	12	N	Sci Tech Soc Radio & Electrocomm	0003	EI
RCAPA	S	SP	06	N	Patronato " Juan De La Cierva "	0003	BA,CA,EI,MA
RCARA	E	US	04	I	RCA Lab	0020	AS,CA,EI,MR
RDEEA	E	GB	12	N	Ins Electronic & Radio Engr	0004	AS,BT,CA,EI,MA
RELLA	EJ	JA	IR	I	Electrotechnical Lab	0003	CA,EI
RELTA	J	JA	06	I	Nippon Telegraph & Telephone	0009	CA,EI
RGNGA	ES	SP	04	A	Ins Nacional Geofisica	0001	CA,MG
RISCA	EI	IT	12	G	Consiglio Nazionale Delle Ricerche	0006	BA,CA,PS
RISRA	J	JA	04	G	Science Council Japan	0048	CA
RMBLA	DEG	BE	04	I	MBLE	0001	PA
RMFZA	ES	ME	04	N	Soc Mexicana De Fisica	0058	CA
RMPHA	E	US	04	N	American Ins Physics	0051	BA,CA,EI,MA,MR
ROTIA	F	FR	12	N	Ins Optique Theor & Appl	0028	MR
RRETA	J	JA	IR	U	Tohoku Univ Res Ins Electrical Comm	0001	CA,EI,MA
RRPQA	EFGRS	RO	10	A	Acad Republ Populare Romine	0079	CA
RSINA	E	US	12	N	American Ins Physics	0571	AS,BA,CA,EI,MA,MG,RP
RSRAA	EI	IT	12	G	Consiglio Nazionale Delle Ricerche	0018	BA,CA,PS
RSRVA	EI	IT	12	G	Consiglio Nazionale Delle Ricerche	0002	BA,CA,PS
RTCPA	EFG	NE	12	N	Ned Chem Vereniging	0005	BA,CA,MA
RUICA	EFG	TU	IR	U	Univ Istanbul Fac Sci	0004	AM,CA,MR
RVGPA	E	US	04	N	American Geophysical Union	0010	PA
SAJSA	E	SA	12	N	S African Assoc Adv Sci	0002	BA,CA,EI,MR
SBPBA	DEF	BE	IR	N	Soc Belge De Physique	0021	PA
SCAMA	E	US	12	C	Scientific American	0033	AS,BA,CA,MA,PS,RG

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
SCATA	E	US	IR	GG	Smithsonian Ins, US Govt Printing Off	0001	MR
SCEFA	FMR	RO	10	A	Acad Republ Populare Romine Ins Fiz Atom	0018	CA
SCELA	EFG	SW	04	C	Birkhauser	0001	EE,EI
SCIEA	E	US	52	N	American Assoc Advancement Science	0133	BA,CA,EI,IM,MA,MG,NA
SCIMA	EFGIS	IT	12	NG	NG	0003	BA,CA,MR,RM
SCINA	E	IN	12	N	Indian Science News Assoc	0005	BA,CA
SCJUA	E	GB	12	C	Iliffe	0007	BT,SC
SCLIA	E	JA	02	U	Tokyo Univ Educ Ins Optical Res	0008	CA
SCNTA	S	CH	04	U	Univ Technica Federico Santa Maria	0003	BA,CA
SCPRA	E	GB	04	C	Blackwell	0010	BA,BT,CA
SCRTA	EJ	JA	01	U	Osaka Univ College General Ed	0002	CA
SERDA	EJ	JA	04	U	Doshisha Univ Sci & Engr Res Inds	0003	CA
SOBAA	NG	SU	NG	C	Almqvist	0001	MR
SPACA	EFG	GB	12	C	Pergamon	0047	AG,CA,NS,RM
SPIPA	J	JA	06	N	Ins Physical Chemical Res	0009	CA
SPRDA	E	IR	IR	N	Royal Dublin Soc	0001	BA,CA,MA,NA
SPSTA	E	US	12	C	Cowan Publishing	0019	CA,EI
SRENA	E	US	04	N	Solar Energy Soc	0008	BA,CA,EI
SRTAA	EG	JA	06	U	Tohoku Univ Res Ins	0006	CA,EI,MA,MR
SSCOA	E	GB	12	C	Pergamon	0132	CA
SSELA	EFG	GB	12	C	Pergamon	0095	CA,EI,MA
SSINA	C	CI	04	A	Acad Sinica	0058	BA,CA,IM,MA
SSWNA	D	NE	03	C	Noordhoff	0001	MR
STPHA	E	JA	IR	U	Hiroshima Univ Res Ins Ins Theor Phys	0001	NG
STUCA	EFG	JA	04	U	Tohoku Univ Fac Science	0010	MR
STZTA	EFG	SW	12	C	Buchdrucherei Vogt-Schild	0001	CA,EI,MA,RP
SUNVA	EFGN	NO	IR	AU	Norske Videnskaps Akad, Univ Oslo Fac Sci	0001	BA,CA,MR
SUSCA	EFG	NE	06	C	North Holland	0092	MA
SYUMA	J	JA	01	U	Yokohama Natl Univ	0003	MR
TAOGA	G	GE	IR	C	Springer-Verlag	0024	CA

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
TASMA	E	US	04	N	American Soc Mech Engr	0001	CA,EI,MA
TBICA	E	IN	04	N	Bose Research Ins	0001	BA,BS,CA
TCSPA	F	MO	IR	N	Ins Scientifique Cherifien	0001	CA
TELLA	EFG	SU	04	N	Svenska Geofysiska Foreningen	0033	BA,CA,MG
TEMDA	F	FR	12	C	Dunod	0001	AM,CA,EI,RM
TFSOA	E	GB	12	NU	Faraday Soc Abardeen Univ Press	0085	BA,CA,EI,MA,MR,RP
TJIMA	J	JA	12	N	Japan Ins Metals	0006	CA
TKABA	EG	JA	IR	N	Tokyo Astronomical Observ	0001	PA
TMRFA	EGR	GE	04	G	RFZ	0001	PA
TMSAA	E	US	04	N	American Ins Mining Metallurg Engr	0302	CA,NS
TNEEA	E	GB	08	N	Ne Coast Ins Engr	0001	BT,EI,MA
TNRMA	E	JA	02	G	Natl Res Ins For Metals	0006	CA,RM
TREKA	E	JA	IR	U	Engr Res Ins	0002	CA,EI,MA
TROUA	J	JA	02	U	Osaka Univ Fac Engr	0006	CA,MA
TRTUA	J	JA	IR	U	Tohoku Univ	0011	CA,EI,MA
TSINA	E	GB	04	N	Soc Instrument Tech	0001	BT,EI,MA
TVYTA	R	SR	06	A	Akad Nauk SSSR	0082	CA
UFNAA	R	SR	12	A	Akad Nuak SSSR	0035	CA,MR
UFZHA	ERU	SR	12	A	Akad Nauk SSSR	0260	CA,MA
ULTRA	E	GB	04	C	Iliffe	0004	BT
VACUA	E	GB	12	C	Pergamon	0067	BT,CA,EI,MA
VAKTA	EFG	GE	10	NC	D Arbeitsgemeinschaft Vakuum, Lang	0018	CA,EI,MA
VDIZA	G	GE	03	N	Verein D Ingr	0004	CA,EI,MA
VIDEA	EF	FR	06	N	Soc Francaise Ingr & Techniciens Vide	0016	CA,EI,MA
VISRA	EFGR	GB	06	C	Pergamon	0022	BA,CA,PS
VKVAA	EX	BE	IR	A	Vlaamse Acad Wetensch	0001	BA,CA
WCGMA	G	GE	IR	U	Tech Hochschule Otto Von Guericke	0002	CA
WZTUA	G	GE	06	U	Tech Universitat	0003	CA,MR

Table I (cont'd)

CODEN	LANG	CT	FQ	PT	PUBLISHER	#ABS PA/65	SERVICES
YAFIA	R	SR	12	A	Akad Nauk SSSR	0233	NG
ZAMPA	EFG	SW	12	C	Birkhauser	0025	CA,EI,MA,MR
ZAPHA	G	GE	02	C	Springer-Verlag	0203	CA,EI,MA,MR
ZEASA	EFG	GE	01	C	Springer-Verlag	0043	CA,MG,MR
ZEGEA	EFG	GE	06	C	Physica-Verlag	0007	PA
ZEINA	EFG	GE	12	C	F Vieweg	0012	CA,EI,MA
ZEMTA	EG	GE	12	NC	D Ges Fur Metallkunde, Riederer-Verlag	0030	CA,EI,MA
ZENAA	EFG	GE	12	C	Verlag Zeitschrift Naturforschung	0318	BA,CA,MR
ZEPYA	EG	GE	06	C	Springer-Verlag	0285	CA,EI,MA,MR
ZFPRA	ER	SR	12	A	Akad Nauk SSSR	0579	CA,EI,MA
ZPCFA	EFG	GE	12	C	Akad Verlagsges	0029	BA,CA,MA
ZPCLA	G	GE	09	C	Akad Verlagsges Geest	0014	AM,CA,NS,RM
ZPSBA	R	SR	12	NG	NG	0009	CA
ZTEFA	ER	SR	12	A	Akad Nauk SSSR	0351	CA,EI,MA
ZVMFA	R	SR	06	A	Akad Nauk SSSR	0021	PA

APPENDIX A

CODES USED IN TABLE I

Publisher Types

A = Academies, National
C = Commercial
G = Governmental
I = Industrial Companies
W = International Bodies
N = Non-Profit
U = Universities

Country of Publication

AR = Argentina
AS = Australia
AU = Austria
BE = Belgium
BR = Brazil
BU = Bulgaria
CA = Canada
CH = Chile
CI = China
CZ = Czechoslovakia
DE = Denmark
FI = Finland
FR = France
GB = Great Britain
GE = Germany (East & West)
GH = Ghana
HU = Hungary
IN = India
IR - Ireland
IS = Israel
IT = Italy
JA = Japan
ME = Mexico
MO = Morocco
NE = Netherlands
NZ = New Zealand
NO = Norway
PA = Pakistan
PO = Poland
PG = Portugal
RO = Rumania
SP = Spain
SA = South Africa
SU = Sweden
SW = Switzerland
TA = Taiwan
TH = Thailand
TU = Turkey
US = United States of Amer.
SR = Union Soviet Socialist Republics
YU = Yugoslavia

Language of Publication

B = Bengalese
> = Bulgarian
C = Chinese
Z = Czech
D = Dutch
E = English
X = Flemish
F = French
G = German
H = Hungarian
I = Italian
J = Japanese
L = Latvian
K = Lithuanian
N = Norwegian
P = Polish
O = Portuguese
M = Rumanian
R = Russian
Q = Serbian
V = Slovak
S = Spanish
W = Swedish
# = Tamil
T = Thai
Y = Turkish
U = Ukranian

Frequency of Publication

72 = 72 times a year
52 = Weekly
36 = Three times a month, or 36 times a year
24 = Twice a month, or fortnightly
19 = Nineteen times a year
12 = Monthly, or twelve times a year
10 = Ten times a year
8 = Eight times a year
6 = Every two months, or six times a year
5 = Five times a year
4 = Quarterly, or four times a year
3 = Three times a year
2 = Twice a year
1 = Annually
IR = Irregular
NG = Not given

ABSTRACTING AND INDEXING SERVICES

COVERING PHYSICS JOURNALS

AG	Bibliography of Agriculture
AM	Applied Mechanics Review
AS	Applied Science and Technology Index
BS	Bibliography of Scientific Publications of South and Southeast Asia (Ceased 1965)
BA	Biological Abstracts
BE	British Educational Index
BT	British Technology Index
CA	Chemical Abstracts
EE	Electrical Engineering Abstracts (B. of Science Abstracts)
EI	Engineering Index
FA	Fuel Abstracts
IA	International Aerospace Abstracts
IM	Index Medicus
MR	Mathematical Reviews
MA	Metallurgical Abstracts
MG	Meteorological and Geoastrophysical Abstracts
NA	Nutrition Abstracts and Reviews
NS	Nuclear Science Abstracts
Ph	Photographic Abstracts
Ps	Psychological Abstracts
RG	Readers' Guide to Periodical Literature
RZ	Referativnyi Zhurnal
RM	Review of Metal Literature
RP	Rubber and Plastics Research Association of Great Britain
SC	Science Citation Index
NG	Not Given